US Army Corps of Engineers

LTMS Grays Harbor Navigation

Winter 2008-2009

Long list of alternative strategies narrowed

The objective of the Long Term Management Study is to identify the most cost-effective and environmentally sound strategy to operate and maintain the federal navigation project in Grays Harbor. The Corps will continue to operate and maintain a safe navigation channel. The Corps' goal is to make the best use of federal navigation funds in maintaining and protecting the federal navigation project features.

Following the February 2006 workshop, the study team began evaluating the alternatives using the Corps of Engineers' threshold criteria. The team refined the alternatives into five broad categories:

1. Current Practice
2. Beach Nourishment
3. Revised Jetty Extension
4. Deferred Action
5. No Response

These broad categories included 15 variations in total. All of these alternatives were analyzed for engineering feasibility and environmental acceptability by the technical experts on the Seattle District LTMS team. All the alternatives have also been provided to a contractor, Anchor Environmental, for an environmental assessment. The alternatives recommended for additional analysis will be presented at the Jan. 21 public meeting for discussion. It is anticipated that the list of alternatives will be narrowed from the 15 provided to four-six identified for further analysis.

Background

The reports of studies conducted over the last 14 years reflect consensus that, without intervention, a breach will reform between the south jetty and the south beach. In light of the projected threat to the South Jetty and the navigation channel, and recognizing the advisability of maintaining land access to the South Jetty for maintenance purposes, the Corps moved forward with the LTMS study on the premise that a breach would eventually pose an unacceptable threat to the navigation project and its facilities. The objective of this analysis is to use available information to develop a plan that anticipates and accommodates future changes in the shoreline configuration, minimizes environmental impacts and maintenance costs, and allows the Corps of Engineers to maintain the structures associated with the federal navigation project.

Upcoming Meeting

Jan. 21, 2009, 4-7 p.m.

Port of Grays Harbor Commission Chamber

Public meeting to discuss alternatives that have passed engineering and environmental analysis

Criteria for assessing potential strategy alternatives

The study team has been evaluating alternatives using the criteria discussed previously in public workshops and meetings. There are general threshold criteria any strategy must meet to be further considered by the Corps. It must:

- Be feasible from an engineering standpoint
- Be economically viable (cost-effective)
- Be environmentally acceptable (approval and concurrence of resource agencies)
- Be within Operation & Maintenance authority for Grays Harbor
- Comply with existing federal and state laws
- Maintain the Corps' obligations for revetment coverage
- Accomplish the project purpose
- Anticipate decreasing availability of dredged material

Design assumptions

The alternatives for addressing the Long Term Maintenance of the South Jetty were evaluated based on the following design assumptions:

- The alternatives will be evaluated on the basis of a 50-year-design life.
- The loss of material from the South Beach offshore area will continue at historical rates.
- The recession rate of the South Beach shoreline will continue at the 1976 - 2005 average of 10 feet per year.
- Maintaining the existing configuration of Half Moon Bay will require the placement of 50,000 cubic yards per year directly on the beach, and 200,000 cy/yr in the nearshore area (-10 feet to 20 feet mean lower low water).

Assumptions (cont.)

- Ongoing maintenance dredging of the existing Entrance Channel will provide 300,000 cy/yr of suitable nourishment material for the next 10 years.
- In 10 years, the Entrance Channel will be realigned and the volume of suitable dredged material will decrease to 200,000 cy/yr.
- Without intervention, a breach will reform in 2014 (i.e. 20 years since last breach fill in 1994).
- If a breach is allowed to develop, it will enlarge for three years, before it becomes a threat to navigation project structures.

Design Objectives

The alternatives for addressing the long term maintenance of the South Jetty must meet the following design objectives:

- The plan will allow the Corps of Engineers to continue to maintain and protect the Grays Harbor navigation project features in a cost effective, environmentally acceptable manner.
- The plan will address the long-term erosion rates of the South Beach and Half Moon Bay shorelines, and balance the availability of sand with beach nourishment requirements.
- The plan will provide ready access to the South Jetty for maintenance purposes.
- The plan will be designed to avoid the possibility of "end cutting."

LTMS Study Timeline

2005 - April 2006	Bird studies
June - August 2005	Independent Technical Review
June 2005	Final round of benthic studies
July 12, 2005	Port Commission Meeting
August 2005	ITR completed
Sept. 14, 2005	Meeting regarding ITR findings
Sept. 29, 2005	Public workshop on alternatives
December 2005	Alternatives narrowed
Feb. 16, 2006	Information meeting
March 2006 - October 2008	Study team alternatives analysis
August 2008	Update to Port Commission
October 2008- February 2009	Draft Environmental Assessment
Jan. 21, 2009	Public meeting on narrowed list of alternatives
April 2009	Final Environmental Assessment

Information meeting Jan. 21

The LTMS team will present the alternatives recommended for additional analysis at the Jan. 21 public meeting for discussion. The meeting is in the Port of Grays Harbor Commission chambers from 4-7 p.m. Light refreshments will be provided. It is anticipated that the list of alternatives will be narrowed from 15 down to four to six identified for further analysis. Once the narrowed list is presented, interested parties will be invited to ask questions and provide information regarding the narrowed list.

List of alternatives

1. Current practice
2. Beach nourishment
   a. Sand placement on South Beach and Half Moon Bay
   b. Sand placement and diffraction structure
   c. Gravel placement and diffraction structure
   d. Dune modification, sand and gravel placement, diffraction structure
   e. Dune modification, gravel placement, diffraction structure
3. Revised jetty extension and beach nourishment
   a. 1,800-foot jetty extension, 500-foot diffraction structure, sand cover, allowance for weir
   b. Same as 3a, but with gravel along Half Moon Bay
   c. Same as 3a, but with a reduced crest height (weir) in portion of jetty parallel to South Beach
4. Deferred action
   a. Breach allowed to form and access trestle constructed only for required jetty maintenance (app. 25 year intervals)
   b-1. Establish land access within six months of breach
   b-2. Establish land access within two years of breach
   b-3. Establish land access for rehabilitation only
   c. Close breach when it reaches trigger dimensions
5. No response

Next steps

After the Corps of Engineers receives input from the public at the Jan. 21 public meeting, a draft Environmental Assessment will be written for agency review. The draft EA will be available to the public for review in March 2009. A final EA is expected to be completed in April 2009. If that assessment does not identify significant impacts, the Corps of Engineers can begin to conduct in-depth economic and engineering analysis to recommend a preferred long term management alternative.

Grays Harbor Navigation Maintenance Long Term Management Strategy Points of Contact

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